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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/705,105	11/02/2000	Daniel T. Bogard	SIG000053	4992

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EXAMINER	
FLANDERS, ANDREW C	
ART UNIT	PAPER NUMBER
2615	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/705,105	BOGARD, DANIEL T.	
	Examiner	Art Unit	
	Andrew C. Flanders	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

After further consideration, the previous Election/Restriction requirement has been determined to be improper and thus is withdrawn. Claims 1 – 46 will be examined on the merits.

Response to Arguments

Applicant's arguments filed 16 January 2007 have been fully considered but they are not persuasive.

Regarding the 35 USC 103(a) rejections Applicant alleges:

> "Yokozawa does not, however, teach or suggest processing data received from an external content display device to produce presentation information and processing content data for presentation on the external content display device based on the presentation information as is claimed in claim 1."

Examiner respectfully disagrees. As shown in the previous rejection mailed 08 November 2006 Yokozawa does teach processing data received (i.e. playing audio through 19) from an external content display device (the audio being passed through 214) to produce presentation information (i.e. the audio playback) and processing content data for presentation on the external content display device (i.e. displaying the track number and timing info) based on the presentation information (the track and

timing info depend upon which track is selected via 214). All of these elements are clearly shown in Fig. 1 element 200 which was cited in the previous rejection.

Applicant further alleges:

> Allan does not, however, teach separating modulated data from the content data, retrieving the data from the modulated data, and introducing the content data into a channel coupling the device to the external content display device as is claimed in claim 1.

Examienr respectfully disagrees. Allen states very clearly in col. 4 lines 19 – 23 teach separating modulated data from the content data, retrieving the data from the modulated data (i.e. the data and voice signals are separated by the filter and sent to their appropriate locations). Further when taken in combination, the device introduces the content data into a channel coupling the device to the external content display device (i.e. the device of Allen sends the signals to the appropriate locations of Yokozawa.)

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 claims content data and modulated data. Later in the claim there is a limitation of retriving "the data" from the modulated data. It is unclear what this data is. Similar problems exist in various other claims that are too numerous to list. Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1 – 46 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding **Claims 33 – 45**, the claims appear to be directed to a device, which falls within one of the four enumerated statutory categories. However, the claimed invention, of claims 33 – 45, when considered as a whole are directed to nothing more than a software program stored in a memory that execute on a processor. This is evidenced by the memory which includes operation instructions that cause the processing module to perform various functions. Thus the claims cover a judicial exception of an abstract idea in the form of software. For a judicial exception to contain statutory subject matter, a practical application must be claimed in the form of a physical

transformation or producing a useful, tangible and concrete result. The claimed invention does not claim a practical application in one of these two ways and thus is non statutory.

Regarding **Claims 1 – 32**, the claims appear to be directed to a device, which falls within one of the four enumerated statutory categories. However, the claimed invention, of claims 1 - 32, cover the judicial exception of an abstract idea in the form of a software program. This is evidenced by claims 33 – 45 which contain the same limitations but in the form of a processor executable instruction. For a judicial exception to contain statutory subject matter, a practical application must be claimed in the form of a physical transformation or producing a useful, tangible and concrete result. The claimed invention does not claim a practical application in one of these two ways and thus is non statutory.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2 – 4, 6, 9 10, 12, 13, 14, 15, 17, 18, 19, 21, 24, 26, 27, 29, 31, 32, 33, 35, 38, 40, 41, 42, 43, 45 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokozawa (U.S. Patent 5,420,739) in view of Allen (U.S. Patent 4,442,540).

Regarding **Claims 1, 14, 19 and 28**, Yokozawa discloses:

A device for processing content data (abstract), the device comprises:

data processing circuitry (headphones 110; 19) operably coupled to process data received from an external content display device (ECDD is met by 214 which is operably coupled to headphones 110)) to produce presentation information (i.e. audio playback through the headphones);

content processing module (210) operably coupled (connected to 214 and 110) to process content data (i.e. track timing information) for presentation on the external content display device (timing information shown on 221) based on the presentation information (i.e. the track and timing depend upon which track is selected and currently playing and thus are 'based on the presentation information').

Yokozawa does not disclose a transceiving module operable coupled to the data processing circuitry and the content processing module, wherein the transceiving module separates modulated data from the content data, wherein the transceiving module retrieves the data from the modulated data, and where the transceiving module introduces the content data into a channel coupling the device to the external content display device.

The combination of Yokozawa in view of Allen discloses:

transceiving module operable coupled to the data processing circuitry and the content processing module (i.e. the device in Allen disclosed in figure 1 is attached between the player and the display/headphones and operates in both ways, sending data from the audio player to the display/headphones and sending data from the controls to the audio player in Yokozawa),

wherein the transceiving module separates the modulated data from the content data, wherein the transceiving module retrieves the data from the modulated data (i.e. at the receiver the speech and data signals are sent to an A/D converter and then through a time varying filter to separate the voice and data signals which are sent to their appropriate locations; col. 4 lines 19 – 23 in Allen; the locations in this instance being the display 221 and the headphones 110 in Yokozawa),

and wherein the transceiving module introduces the content data into a channel coupling the device to the external content display device (i.e. the voice signal is then sent to its appropriate location, in the combination, the headphones).

It would have been obvious to one of ordinary skill in the art at the time of the invention to add the system for combining audio and data for transmission over a single line as taught by Allen to the system portable audio system with a detachable control unit taught by Yokozawa. One would have been motivated to do so in order to efficiently transmit voice and data over a single cable avoiding the user of band-switching techniques thereby maximizing the audio's intelligibility; col. 2 lines 35 – 40 in Allen.

Regarding **Claims 33 and 42**, in addition to the elements stated above regarding independent claims 1, 14, 19 and 28, the combination of Yokozawa in view of Allen fails to disclose a processing module with a memory operably coupled to the processing module, wherein the memory includes operation instructions that cause the processing modules to carryout the features of claims 1, 14, 19 and 28.

However, Examiner takes official notice that it is notoriously well known to implement methods such as the ones disclosed in Applicant's claims 1, 14, 19 and 28 on a programmable processor. One would have been motivated to do so in order to costs when manufacturing and provide more features in a smaller package.

Regarding **Claim 2**, in addition to the elements stated above regarding claim 1, the combination of Yokozawa in view of Allen further discloses:

wherein the content data comprises at least one of: audio data, video data, text data, and multimedia data (i.e. the system is an audio player; Fig. 1 in Yokozawa).

Regarding **Claim 3**, in addition to the elements stated above regarding claim 1, the combination of Yokozawa in view of Allen further discloses:

wherein the data comprises at least one of digitized audio, digitized video, and incoming remote control data (i.e. the audio player is controlled by the remote control; Fig. 1 element 217 in Allen).

Regarding **Claim 4**, in addition to the elements stated above regarding claim 1, the combination of Yokozawa in view of Allen further discloses:

wherein the remote control data comprises at least one of: volume adjust data, stop data, play data, pause data, rewind data, fast forward data, next track data, channel up/down data, bass boost data, record data, intensity data, contrast data, security access data, and telephone access code data (col. 7 lines 20 – 25 in Allen).

Regarding **Claims 6, 21 and 35**, in addition to the elements stated above regarding claims 1, 19 and 33, the combination of Yokozawa in view of Allen further discloses:

wherein the transceiving module comprises:

high pass filter to separate the content data from the modulated data (i.e. the data and voice signals are separated by the filter and sent to their appropriate locations; col. 4 lines 18 – 23 in Allen);

gain module operable coupled to provide gain to the modulated data to produce gain modulated data (i.e. controls such as volume; col. 7 lines 16 – 27; in Yokozawa);

data extraction circuit operable coupled to retrieve the data form the gain modulated data (i.e. the headphones 110 and control unit 217 receive the amplified signal and display numbers and play analog audio accordingly; Fig. 1 in Yokozawa).

Regarding **Claim 9**, in addition to the elements stated above regarding claim 1, the combination of Yokozawa in view of Allen further discloses:

wherein the data processing circuitry further comprises:

display information module operable coupled to provide outgoing display data to the transceiving module (Fig. 1 elements 221 and 110 displays track and timing information from the portable audio device; Fig. 1 element 200).

Regarding **Claims 10, 15, 24 and 38**, in addition to the elements stated above regarding claims 9, 14, 19 and 33, the combination of Yokozawa in view of Allen further discloses:

wherein the transceiving module further comprises:

data modulator operably coupled to modulate the outgoing display data to produce modulated outgoing display data (i.e. modem 7 modulates the data signal; Fig. 1 in Allen); and

combining circuit operably connected to combine the content data and the modulated display data to produce transmit data that is provided to the external content display device (i.e. the data and audio is combined and output at element 14 in Fig. 1 of Allen).

Regarding **Claims 12, 17, 26, 31, 40 and 45**, in addition to the elements stated above regarding claims 10, 15, 24, 28, 38 and 42, the combination of Yokozawa in view of Allen further discloses:

high pass filter operably coupled to the channel, wherein the high pass filter filters the modulated display data to produce filtered data, wherein the filtered data is provided on the channel (Fig. 1 element 3 of Allen); and

high frequency isolation module operably coupled to the channel, wherein the high frequency isolation module substantially attenuates the filtered data and passes the content data substantially untenanted such that the content data is isolated from the modulated display data (Fig. 1 element 3 of Allen).

Regarding **Claims 13, 18, 27, 32, 41 and 46 i**n addition to the elements stated above regarding claims 1, 14, 19, 28, 33 and 42 the combination further discloses:

an external content display device detection module operably coupled to detect capabilities of the external content display device in preparing the data (The display device (DD) displays the track timing and other track info these display is from the playback device's (PD) ability to read the track info and send it ot the display, thus the DD detects the abilities of the PD).

Regarding **Claims 29 and 43**, in addition to the elements stated above regarding claims 28 and 42, the combination of Yokozawa in view of Allen further discloses:

wherein the combining the display data and the content data further comprises:

modulating the display data at a rate that is substantially higher than the rate of the content data to produce modulated display data (i.e. the data signal is sent in an

upper portion of the channel bandwidth above that of the speech signal; col. 4 lines 3 – 7).

Claims 8, 11, 16, 23, 25, 30, 37, 39 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokozawa (U.S. Patent 5,420,739) in view of Allen (U.S. Patent 4,442,540) and in further view of Barclay (U.S. Patent 6,850,55).

Regarding **Claims 8, 23 and 37**, in addition to the elements stated above regarding claims 6, 21 and 35, the combination of Yokozawa in view of Allen fails to disclose the limitations of the data extraction circuit claimed in claim 8.

Barclay discloses:

clock recovery circuit operably coupled to generate a clock signal from the gain modulated data (i.e. encoding may be employed in Fig. 4 to facilitate synchronization and or regeneration of a clock signal; col. 8 lines 19 – 21);

a correlator operably coupled to receive the clock signal, wherein the correlator detects patterns of the data contained within the modulated data to produce correlated data (i.e. the correlator unit outputs positive and negative peaks when there is a match; col. 5 lines 29 – 31); and

a phase comparator operably coupled to receive the correlated data and to produce therefrom the data (i.e. the peaks output from the correlator are fed to a message regeneration circuit which coverts the peaks into binary signals).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use Barclay's message regeneration method on the combination of Yokozawa in view of Allen. One would have been motivated to do so in order to efficiently send and receive modulated data from the player to the control unit.

Regarding **Claims 11, 16, 25, 30, 39 and 44**, in addition to the elements stated above regarding claims 6, 15, 24, 29, 38 and 43, the combination of Yokozawa in view of Allen fails to disclose the limitations of the data modulator claimed in claim 8.

Barclay discloses:

a pseudo random code generator operably coupled to produce a random code (i.e. Fig. 4 element 40); and

a modulator operably coupled to receive the random code and the outgoing display data to produce the modulated display data (i.e. the microprocessor receives the information from the message regeneration circuit and outputs it to display 49; Fig. 4).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use Barclay's message regeneration method on the combination of Yokozawa in view of Allen. One would have been motivated to do so in order to efficiently send and receive modulated data from the player to the control unit.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Flanders whose telephone number is (571) 272-7516. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7546. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

acf

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SUPERVISORY PATENT EXAMINER